

# **SUMMARY OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT**

## **Introduction**

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This Draft Environmental Impact Statement (DEIS) presents an analysis of the environmental effects of various alternatives proposing activities in the West Side Reservoir Post-Fire project area. A no action alternative is also evaluated. Proposed management activities are primarily designed to salvage merchantable wood products killed in the wildland fires that burned on the west side of Hungry Horse Reservoir in 2003.

The West Side Reservoir Post-Fire Project area is located in Flathead County and is approximately 20 air miles east of Kalispell, Montana. The area is approximately 181,700 total acres with about 114,600 of this managed by the Hungry Horse Ranger District and about 67,100 acres managed by the Spotted Bear Ranger District. The entire project area and activities proposed in this DEIS are entirely located on National Forest System lands.

Proposed activities were developed by an interdisciplinary team (IDT) and were based upon an evaluation of areas in and around those that burned in 2003. The evaluation was conducted to better understand the impact of the fires on the resources across the landscape; the existing condition of key resources within the area on a broader, landscape scale; and a desired future range of conditions using past public involvement, current management direction, regulations, and laws. The evaluation (resource specialist reports in the Project Record) suggested several management actions appear appropriate at this time. The Proposed Action was then developed through interdisciplinary consideration of resource conditions.

## **Purpose and Need for Action**

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The purpose of the proposed action is to recover merchantable wood fiber affected by fires in a timely manner to support local communities and contribute to the long term yield of forest products while striving to meet the goals and standards of the Flathead National Forest Land and Resource Management Plan (Forest Plan).

## **Decision to be Made**

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The Responsible Official may choose any of the alternatives analyzed in this document, including the No Action alternative or some combination of elements of action alternatives, as long as they are within the range of effects. Two action alternatives contain some proposed activities that would require project-specific Forest Plan amendments if included in the Record of Decision. Alternatives B and E would require amendments to change the Forest

Plan Amendment 19 road density and security core standards for the six grizzly bear subunits affected.

## Public Review and Comment

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Public participation helps the Forest Service identify concerns with possible effects of its proposals. It is also a means of disclosing to the public the nature and consequences of actions on National Forest land.

A public involvement strategy for this project was developed to ensure that potentially interested members of the public and other government agencies received timely information about the upcoming analysis so they may participate in the planning process.

## Identification of Issues

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Issues are identified through the public scoping process and by review from other agencies and Forest Service personnel. The scoping process is used not only to identify important environmental issues, but also to identify and eliminate issues that do not pertain to the Proposed Action thus narrowing the scope of the environmental documentation process accordingly. The following issues were identified to address concerns about, and develop alternatives to, the Proposed Action.

### Not Enough Snags are Being Left on the Landscape

Many comments were received stating snags should be retained in numbers over that in the proposed action to ensure that these wildlife habitat and ecosystem components are provided on the landscape over time. Concern expressed often centered on the amount of previous timber harvest activity that occurred on burned areas in the past and currently have very little snag habitat.

### Not Enough Snags are Proposed for Harvest

Many individuals and groups responding to the activities outlined in the Proposed Action felt snag retention should be less than proposed because snags are prevalent in other areas burned by the fires. Often they indicated snags were available for wildlife habitat in areas unavailable for timber harvest and in areas outside the project area, such as where fires burned in Glacier National Park or in the Bob Marshall Wilderness Area. Additionally, some responses implored the Forest Service to salvage the largest and most economically valuable snags and leave the smaller, damaged, and unsound snags for wildlife habitat.

### Not Enough of the Burned Areas are Being Salvage Logged

We received many comments from people asking why we identified only 6100 acres on which to salvage trees when over 30,000 acres burned on National Forest System lands. As a result of the relatively small amount of proposed acres for salvage, they thought the proposal

does not provide enough economic income to the local economy because it does not salvage enough of the fire-affected areas (riparian areas, inventoried roadless areas, etc.).

### **Bark Beetle Management is not Adequately Addressed in the Proposed Action**

Comments were received indicating the West Side Reservoir Fires have resulted in favorable habitat for bark beetles and other insects potentially resulting in large population increases that could kill some remaining live trees inside and outside fire perimeters. The concern was that the Forest Service was not doing enough to reduce the bark beetle populations and additional live trees not affected by the wildfires would later die to bark beetles.

### **Grizzly Bear Security is not Adequately Addressed in the Proposed Action**

The Proposed Action outlines an access management plan that makes progress toward meeting Forest Plan Amendment 19 (A19) road density and core area standards but does not fully meet them in all six of the bear management subunits within the project area. Many comments were received that stressed the project should fully meet A19 standards prior to salvage activities in order to provide adequate security for grizzly bears.

### **Bald Eagle Security and Big Game Winter Range Quality Need to be Emphasized**

Some members of the public commented that the project should avoid activities that impact bald eagle nesting areas and big game winter range. Both of these wildlife management issues occur within the project area and near proposed activities.

### **Public Motorized Access is Reduced Too Much**

One of the most common issues raised in the comments we received on the Proposed Action is the changes in access management reduce opportunities for motorized recreational and future management options too much. Of particular concern is the Beta Lake Road (895H) that offers unique high elevation fishing and spring bear hunting opportunities.

### **Water Quality Must Be Maintained or Improved**

Comments were received that expressed concern that salvage harvest may result in increased sedimentation to project area streams. This would include Sullivan Creek, a water quality limited stream as identified on the 1996 Montana DEQ's 303(d) list and proposed as a category 2 in the draft 2004 303(d) list. Comments specifically included concerns that salvage harvest in or near riparian areas with high burn severities needed extra protection.

### **Possible Old Growth and "Recruitment" Old Growth Should Not be Salvage Logged**

Comments were received expressing concern that all areas where the old growth status is uncertain due to the 2003 fires should not be salvaged. In addition, they felt that certain other areas would attain old growth characteristics more quickly and be of better habitat quality if left unsalvaged. Members of the public wanted the Forest Service to determine the status of these areas for their old growth and "recruitment old growth" characteristics and avoid logging if they still meet established criteria.

## Alternative Descriptions

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Alternative A is the No Action alternative, under which no timber salvage or other activities are proposed. The Proposed Action, Alternative B, was designed to meet the purpose and need of the project while implementing the Forest Plan. The other action alternatives are variations of reduced or increased timber salvage and motorized access from the Proposed Action to emphasize the issues discussed above. Alternative C emphasizes wildlife security, watershed protection, and old growth habitat while meeting Forest Plan standards for road density. Alternative D emphasizes an increased salvage harvest proposal while meeting Forest Plan standards for road density. Alternative E also addresses an increased salvage harvest proposal while also increasing motorized access. These alternatives were designed to address the key issues and represent a reasonable range of actions, while at least partially meeting the Purpose and Need for action defined in Chapter 1.

### **Alternative A - "The No Action Alternative"**

Under this Alternative, none of the action proposed in any of the other alternatives would occur. The analysis in this DEIS describes the possible or likely consequences of not managing the West Side Reservoir area as proposed in the action alternatives.

### **Alternative B - "The Proposed Action"**

The Proposed Action is a part of a strategy to salvage fire-killed timber and make progress toward meeting Forest Plan road density standards. Treatments would total approximately 4921 acres of commercial timber salvage and 1354 acres of tree planting. About four miles of temporary road would be built and about 49 miles of road would be decommissioned.

Implementation of the proposed action, as well as the other action alternatives, is designed to take place over the course of several years. Most timber salvage activities would be conducted in the first year after the Record of Decision is signed with other activities such as tree planting and road decommissioning taking longer.

### **Alternative C**

This alternative seeks to maintain and/or enhance winter range habitat for elk and deer, old growth and recruitment old growth habitat for cavity nesters and numerous other wildlife species, soil and water quality on harshly burned sites, and bald eagle security in the vicinity of nesting habitat over those outlined in the Proposed Action. It also proposes activities to meet Forest Plan road density standards.

Alternative C was developed using the Proposed Action as the base. This alternative dropped several harvest units and decreased the size of others to avoid activities near an established bald eagle nest or elk and deer winter range in the Sullivan Creek drainage. Other salvage acres were eliminated to avoid activities that could be damaging on soils that experienced particularly high burn intensities. At the time of alternative development, the status of old

growth and recruitment old growth stands as they were affected by the wildfire was not known. Additional salvage acres were eliminated in this alternative to maintain this habitat. Road and trail restrictions for wheeled motorized vehicles are included to meet road density and security core standards for grizzly bear management with an emphasis on the closure of motorized trails over roads. Treatment acres total approximately 3949 acres of commercial timber salvage, along with 1221 acres of tree planting.

### **Alternative D**

This alternative was designed to respond to concerns about retaining too many snags, not salvaging enough of the burned areas, the build-up of bark beetle populations, and not meeting Forest Plan road density standards for grizzly bear security, while meeting the purpose and need of the project.

Alternative D was also developed using the Proposed Action as the base. Changes to this alternative primarily involve a modified approach to snag management and a different approach to meeting Forest Plan Amendment 19 standards for road density and grizzly bear security core areas. The snag retention prescriptions for this alternative involve fewer acres being retained in non-treated patches and the minimum diameters for snag retention trees were increased. Road and trail restrictions for wheeled motorized vehicles also meet road density and security core standards for grizzly bear management like Alternative C but this alternative emphasizes on the closure of roads over motorized trails. Treatment acres total approximately 5298 acres of commercial timber salvage, along with 1462 acres of tree planting. A plan to control bark beetles using pheromone traps and trap trees is also included in this alternative.

### **Alternative E**

This alternative responds to issues raised involving not salvage harvesting enough timber, possibly impacting grizzly bear security, and reducing motorized public access. It is based on Alternative D.

Alternative E uses the same approaches to salvage harvest and snag management as Alternative D but has a different approach to transportation planning. Opportunities to maintain motorized public access on the most popular roads and trails were investigated and incorporated into this alternative. One feature of this alternative is to use spring season road closures on five road segments that were determined to provide important grizzly bear security. Treatment acres total approximately 5338 acres of commercial timber salvage, along with 1472 acres of tree planting. These are slightly higher than Alternative D because of a greater amount of roads open to public motorized access.

## **Comparison of Alternatives**

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Each alternative is evaluated for its effects on important resources and issues that were identified by the public and by Forest Service employees involved with the project. A narrative comparison of the affected environment and environmental consequences of the

alternatives by resource or issue area follows. A tabular comparison can be found at the end of Chapter 2.

## **Vegetation**

The Proposed Action and its alternatives would have little effect on existing or future vegetation. Salvage harvest involves the removal of dead or dying trees and will insubstantially influence forest composition, structure, function, or regeneration. Salvage harvest removes potential downed woody material essential for nutrient cycling, but the level of harvest proposed in this project would allow an abundance of downed woody material to remain. Salvage harvest would reduce the eventual accumulation of fuel that will exist within the fire boundaries. This accumulation of fuel can contribute to a reburn, which often cause severe wildland fire effects.

### **Spruce and Douglas-fir Bark Beetles**

The potential for a spruce beetle outbreak initiated by the wildfires is greater than that for Douglas-fir beetle because of the abundance of susceptible spruce stands in and near the fire areas. Douglas-fir trees and stands are scattered in the fire areas and generally not contiguous with susceptible stands outside the fires. However, Douglas-fir stands are common in and near the Ball Fire, and Douglas-fir bark beetles are currently at high population levels throughout western Montana and northern Idaho, including the project area. Therefore, both spruce and Douglas-fir beetles present a threat of population increases within the fires that could spread up to five miles outside the fires.

All action alternatives salvage dead and dying spruce and Douglas-fir that could otherwise contribute to bark beetle outbreaks. The alternatives vary in bark beetle hazard reduction. Alternative D uses techniques in addition to salvage, including anti-aggregate pheromones, baited traps, and trap trees. Therefore, Alternative D has the most opportunity to reduce a potential bark beetle outbreak. The salvage harvest in all action alternatives is similar in their ability to reduce the hazard for bark beetles. For spruce beetle, Alternatives B, D, and E salvage approximately 20 percent of the susceptible stands within the fire areas. Alternative C harvests approximately 14 percent of the susceptible stands or two-thirds of Alternatives B, D, and E. For Douglas-fir beetle, Alternative B, D and E salvage 30 to 35 percent of the susceptible stands and Alternative C removes about 23 percent or two-thirds of the stands in Alternative B, D, and E.

### **Noxious Weeds**

The primary noxious weed that occurs in the analysis area is spotted knapweed; however risk of spread for this species is low, as it tends to remain on roadsides. Populations of orange and yellow hawkweed currently exist in extensive areas within the analysis area and have the potential to spread. The primary action that allows for the establishment of noxious weeds is ground disturbing activities such as harvesting, burning, and road construction. Risk of noxious weeds spreading from existing sites and establishing in new areas is moderate. Project design features to project soil impacts and washing of equipment used in ground-disturbing activities prior to entering the area and before departure will mitigate the potential for weed spread into and out of the project area. Roadside noxious weeds were treated with

herbicides in summer 2004 and are expected to continue in 2005. Treatment would be consistent with a strategy outlined in the forest-wide noxious weed plan.

### **Threatened and Sensitive Plants**

A habitat suitability analysis was conducted for all 53 recognized Regional Forester's sensitive plants for the FNF, seven proposed sensitive plant species, and for federally threatened plants (water howellia and Spalding's catchfly). No sensitive or federally threatened plants were located during surveys conducted in 2004. Also, there is no suitable habitat for water howellia or Spalding's catchfly within the project area and no effects are expected due to the lack of habitat. Surveys were intuitive, concentrating on areas of suitable habitat for sensitive plants; therefore, not all areas could be surveyed. If Regional Forester's sensitive plants are found prior to ground disturbing activities, mitigation measures will be implemented to protect the population and its habitat. The total of the direct and indirect effects from the proposed project and the contributing cumulative effects from past, present, and reasonably foreseeable future actions would not likely reach thresholds.

### **Fire and Fuels**

All action alternatives reduce fuel to varying degrees proportionate to the amount of salvage harvest acres proposed in each alternative. This is accomplished by in-unit salvage harvest with associated burning of landing slash. Alternatives E, D, and B perform the most fuel reduction, in respective order, with Alternative C performing the least.

### **Air Quality and Smoke Management**

The amount of smoke emissions include particulate matter produced from landing slash disposal and is proportional to the amount of salvage harvest acres proposed in each alternative. All prescribed fire would be conducted in a manner to comply with all established regulations and no health or ambient air quality thresholds would normally be exceeded. Short-term potential impacts to visibility in Class I airsheds would usually be less than one day and typically occur during low visitation periods. Alternatives E, D, and B create the most smoke emissions, in respective order, with Alternative C creating the least.

### **Water Resources / Hydrology**

There are primarily two possible indirect effects to the water resource of the area if Alternative A is implemented. The long-term decrease in the sediment yield would be foregone if the road decommissioning proposed in Alternatives B through E were not implemented. The risk of culvert failures would substantially increase without the road decommissioning proposed in the action alternatives.

Alternatives B through E would increase the potential sediment delivery to streams in most watersheds in the analysis area. This increased sediment is short-term (1 to 3 years) as a result of the proposed salvage timber harvesting and road decommissioning. The estimated potential sediment increases from these two activities is a very small percentage of the potential natural post-fire erosion/sediment yield.

The potential sediment yield increase from the proposed salvage activities is the same for Alternatives B, D, and E. Alternative C would be less than the other three alternatives. The potential short-term sediment yield increase from road decommissioning is the same for Alternatives B and E, with a slight increase from Alternative C; and the greatest amount coming from the implementation of Alternative D. Even through Alternatives C and D decommission 69 miles of road and Alternatives B and E decommission 49 miles of road, the long-term sediment reduction from the road decommissioning is virtually the same for the action alternatives.

For Alternatives B through E the potential increase in nutrient levels associated with the proposed salvage activities should not be measurable above natural variation once West Side Reservoir watersheds combine with the waters contained in the Hungry Horse Reservoir. There is no additional increase in water yield that can be directly attributed to salvage of dead trees proposed under Alternatives B through E. There is a small decrease in water yield in the watersheds that have road decommissioning occurring in them.

### **Fisheries**

Fish populations in the South Fork and Hungry Horse reservoir comprise the best native fish community in Montana, however habitat in some streams within the project area has been degraded by past management practices. The primary causes of this habitat modification are excess sediment and water delivered to streams by poorly designed and maintained forest roads. Alternative A would perpetuate the impact of the road system longer than any of the action alternatives because fewer Best Management Practices (BMP) improvements might be implemented and no roads would be decommissioned. Alternatives B through E would require roads used as haul routes to be improved to BMP standards, and each specifies some miles of road to be decommissioned. Road decommissioning has a short-term negative impact on fish habitat due primarily to sediment produced in stream channels during culvert removal. From a long-term perspective, road decommissioning results in lasting habitat improvement and reduces the risk of enormous sediment volumes entering streams if culverts fail. Alternative D, which proposes the most culvert removals associated with road decommissioning, would have the most short-term negative impact and most long-term positive impact on fish populations and habitat. Alternative C has slightly less effect on both counts, while Alternatives B and E have slightly less impact than C, and are approximately equal to one another.

### **Soils**

The effects of management activities on the soil resource primarily involve soil productivity and erosion. All action alternatives are designed so all harvest activities, site preparation, and brush disposal maintain soil productivity. Likewise, soil erosion would be minimized by reducing the amount of bare, disturbed soils in harvested areas. In most cases, the same practices that maintain soil productivity also reduce the risk of soil erosion. Where necessary, erosion control measures would be implemented. The percent of past and proposed disturbance in the analysis area would stay about the same or decrease from 3.6 percent in the no action alternative to 3.6 percent in Alternative B, 3.5 percent in Alternative C, 3.5 percent in Alternative D, and 3.6 percent in Alternative E. The soil analysis indicates that all



alternatives and all activities proposed by the alternatives would meet the Regional Soil Quality Standards and all Forest Plan management direction.

### **Snags and Downed Woody Material Wildlife Habitat**

Alternative A would favor species associated with recent burns, large amounts of snag and downed wood habitat, and abundant insect prey. Alternatives B, C, D, and E would remove snags and downed wood over approximately 3900 to 5300 acres. All live trees and the largest wind-firm snags would be left standing wherever safe to do so, although many large larch and Douglas-fir snags would be salvaged in Alternatives D and E. From 15 to 25% of most units would be left in unsalvaged leave patches. Alternative A would maintain current access to public motorized use, leaving snag and downed wood habitat vulnerable to firewood cutting. In all action alternatives, year-round motorized road access changes would reduce this habitat loss. In all action alternatives, site-specific prescriptions would be followed to meet Forest Plan Amendment 21 snag and downed wood standards.

### **Old Growth Habitat and Old Growth Associated Wildlife Species**

Implementation of all alternatives would comply with the standards contained in the Forest Plan related to old growth. However, Alternatives B, D, and E would not respond as well as Alternatives A and C to the objectives and overall goals of old growth management on the Flathead National Forest. Alternatives B, D, and E would salvage in about 770 acres that were old growth before the 2003 fires and that may still function as old growth habitat. However, design criteria would require any areas that are still old growth to be dropped from units, and these areas will be field-reviewed for old growth habitat attributes in Summer 2004. Approximately 180 acres within some of the proposed salvage units were identified as recruitment old growth. The action alternatives would salvage 1266 to 1279 acres of pre-fire old growth that burned and is clearly no longer old growth habitat. No salvage is proposed in areas that are known to be old growth habitat. The dead wood prescription under Alternatives D and E would not be as effective in providing old growth attributes over time as that in Alternatives B and C. Reducing snag retention emphasis, decreasing snag leave patch size, and increasing minimum snag diameters would remove additional snags and future large downed wood, increasing the length of time until these areas could again function as old growth habitat or supply the particular old growth habitat components necessary for specific old growth associated species.

### **Threatened Wildlife Species**

All action alternatives would improve security for *grizzly bears*, which is currently inconsistent with Forest Plan Amendment 19. Alternatives C and D would meet Amendment 19 objectives, but Alternatives B and E would require a project-specific Forest Plan amendment. Alternative D, emphasizing motorized road closures, would improve habitat security more than would Alternative C, which emphasizes motorized trail closures. Alternatives B and E do not meet five and six, respectively, of the 15 parameters that need to be met under Amendment 19. Under Alternative A, habitat values associated with dead and fallen dead trees would be available to bears over the long term, with low potential for disruption of normal bear behavior. The action alternatives would all salvage harvest in security core habitat, displace or disrupt bear behavior due to the extensive amount of ground-

based and aerial logging activities, and reduce habitat value. Salvage harvest in Alternative C would be least impactful on grizzlies, as it proposes the fewest acres, particularly in security core. Salvage in Alternatives B and E would be the most impactful on grizzly bears and their habitat.

Under alternative A, there would be no salvage logging disturbance impacts on the Spotted Bear **gray wolf** pack. With the action alternatives, there could be some level of disturbance or displacement of wolves or prey during salvage logging. However, due to the existing condition of the wolf analysis area, this potential for disturbance or displacement is expected to be minimal. Alternative A would not improve habitat security via motorized access. The action alternatives are similar in how they improve habitat security for wolves, with a notable exception. Alternative E would provide spring security within the Quintonkon Creek drainage through a motorized access restriction from April 1 to July 1 on Road #381. This drainage is a logical extension of the existing Spotted Bear pack territory and providing security during the spring would certainly minimize mortality risk during the spring black bear hunting season. Alternative E would be best for wolves, followed by C, D, and B.

Since **bald eagles** are highly dependent on large-diameter snags for perching and nesting, the alternative that harvests the fewest of these within bald eagle habitat would be the least impactful. In this context, alternative A is best for eagles. For the action alternatives, Alternative C would be the least impactful on eagles because it does not propose salvage harvesting in identified potential nest stands or foraging habitat in the primary use area. Alternative B would implement a snag prescription that would leave more large-diameter snags than either Alternatives D or E, therefore it would be the second least impactful on eagle habitat.

Under Alternative A, only natural processes would further change **Canada lynx** habitat. Since most of the dead standing trees would remain in place, there would be no loss in future potential denning habitat. None of the action alternatives would change existing suitable habitat into unsuitable. However, the alternative that would harvest the fewest trees (Alternative C) would be best for long-term potential lynx denning habitat. Alternatives D and E would leave fewer large-diameter snags than Alternatives B and C, with more acres removed in Alternative E, which is thus the most impactful in terms of long-term denning habitat potential.

### Sensitive Wildlife Species

None of the proposed alternatives would cause permanent habitat loss for any Sensitive species. Of the 12 Sensitive wildlife species (including the recently delisted peregrine falcon), for six there would be no impact from any of the alternatives as a result of a lack of presence, suitable habitat, or lack of effects on suitable habitat. These six species include the **common loon, harlequin duck, flammulated owl, northern bog lemming, northern leopard frog, and peregrine falcon** (Exhibits Rs-7 through Rs-12).

Alternative A would provide abundant foraging and nesting habitat for the **black-backed woodpecker** in the proposed project areas. The action alternatives would reduce or eliminate black-backed woodpecker use of the salvaged areas. The majority of the area that burned in

the 2003 fires is not proposed for salvage and some of this area would provide nesting and foraging habitat for the black-backed woodpecker.

The decrease in motorized access proposed with Alternatives B through E would reduce the associated mortality of adult *boreal toads*. Much of the boreal toad nursery habitat that could be affected by the action alternatives would be protected by measures outlined in the Fisheries and Hydrology Sections.

Alternative A would provide for the greatest retention of current *fisher* habitat and for the recruitment of future habitat, particularly denning and resting habitat. Salvage activities in Alternatives B through E would prolong the time to recovery of denning and resting habitat in salvaged areas. Identified current old growth would not be logged in any of the proposed alternatives.

Alternative A would likely provide for the best foraging habitat for the *northern goshawk* through the greatest retention of snags, trees, and downed wood. Negative effects on nesting should be minimal with any of the action alternatives as live trees within proposed units would not be cut, and identified current old growth would not be logged.

It is questionable whether potential communal roosting habitat is available for *Townsend's big-eared bat* within the proposed units or the analysis area. If this species is present, salvage would reduce the available large cavities associated with large snags.

*Wolverines* would likely benefit from the reduced motorized access associated with the action alternatives. Project implementation will not likely promote the use of the area as denning habitat, but only a minuscule fraction of the proposed project is potential denning habitat as it is. Given the tendency for wolverine population viability to increase with remoteness from humans and human activities, wolverine would likely benefit similarly to grizzlies from the implementation of Forest Plan Amendment 19.

### Neotropical Migratory Birds

No timber salvage or road construction would occur within Riparian Habitat Conservation Areas or riparian landtypes. Protection of riparian habitats will occur through a combination of protective measures. Long-term snag and downed wood values may be less than optimal for some Neotropical migrant species in many salvaged units, particularly in Alternatives D and E. Alternative C would drop many areas of possible post-fire old growth habitat and recruitment old growth that would typically provide the best areas for snag patches within the units. Access changes in all action alternatives would improve habitat conditions for many wildlife species using riparian and wetland wildlife habitat.

### Management Indicator Species - Commonly Hunted Big Game

In general, the 2003 fires resulted in a decrease in security cover and an increase in forage potential for the next approximately 30 years in burned areas. The reduced motorized access associated with the action alternatives would benefit big game security. No winter range Management Areas as identified in the Forest Plan occur within any of the proposed units. Winter range as identified through interagency efforts is very limited within the proposed

salvage units and occurs only within some of the proposed Ball units for Alternatives B, D, and E. Alternative C would possibly benefit big game by removing some interagency identified winter range from salvage. Ungulate populations and associated carrion are likely to be negligibly affected by any of the alternatives.

## **Recreation**

There are no substantial differences between the alternatives related to salvage timber sales for developed and dispersed recreation. The short-term effects of salvage timber sales may restrict how and where the public recreates when the sales are operating. Area closures may be put in place to provide for public safety and expedite the salvage operations. Delays on Road 895 and noise from salvage operations may affect occupancy at the three concession campgrounds. Salvaging should have minimal effects on recreation in the long run. Access routes for salvage operations would be made inaccessible; no new designated motorized routes would be created. The terrain within the sale areas may be opened up as a result, thus snowmobilers may have more opportunities in the sale areas.

Access management on both open roads and motorized and non-motorized trails is affected in each action alternative. Alternative B (Proposed Action) keeps the majority of the ridge top trail Alpine #7 open to motorized use. Seven of the ten trails that connect to the ridge from the east would be closed to motorized use. The motorized trails from the west remain open to the ridge top trail. A total of 40 miles of motorized trail are closed. Alternative B maintains eight major roads as either seasonally or open year round. Alternative C closes 73 miles of motorized trail leaving one motorized route in the north and a few in the south within the analysis area. Alternative C closes the east and west side connector motorized trails as well as the ridge top trail Alpine #7. Alternative C maintains six open or seasonal open major roads. Alternative D closes 45 miles of motorized trail. Alternative D maintains open motorized trails from the west including the ridge top trail, but only one of the connector trails from the east remains open. Alternative D maintains four open major roads. Alternative E (Seasonally Open) maintains the majority of the east/west connector and ridge top motorized trail system as open; 27 miles of motorized trail close in Alternative E. Nine major roads are open year round or seasonally. Four roads or portions of these roads become seasonally open instead of open yearlong in Alternative E.

## **Visuals / Scenery**

Alternative A does not remove vegetation from the landscape through timber harvest or prescribed burning. The natural evolution of the landscape would continue and the vegetation in the existing harvested areas would grow and eventually fill in the burned areas but the shapes would remain evident. All of the other alternatives salvage timber to about the same number of acres, with Alternative E the greatest and Alternative C the least. Salvage harvesting in areas of moderate to high burn severity change the color and pattern of the landscape very little, particularly when the vast majority of live trees would be retained and large numbers of snags are left within the salvage areas. Features common to all action alternatives include the placement of logging slash in skid and skyline trails, thus ensuring continuity of color and pattern.

## **Heritage Resources**

Currently there are no known, previously identified cultural resources located in or near treatment units that will be affected by this alternative. Field investigations will be completed by August of 2004. At that time direct and indirect effects to cultural properties that are eligible for listing on the National Register of Historic Places will be evaluated in consultation with MtSHPO and the CSKT. More site-specific inventories will continue prior to any implementation and appropriate avoidance or project modification will take place to protect the resource. Consultation with MtSHPO and the Confederated Salish and Kootenai Tribes also continue.

## **Socio-Economics**

Each alternative affects the economic and employment conditions of the local area in proportion to the level of activities proposed. Alternatives B, D, and E have similar impacts with Alternative E allowing for the greatest amount of employment and present net value. Alternative C allows for the least employment and value.

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